Thomas J. Woodbury
Forest Defense, P.C.
917 N. 7th St., Suite One
Boise, ID 83702
(650) 238-8759
tom@wildlandsdefense.org

Attorney for Plaintiffs

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MONTANA
MISSOULA DIVISION

NATIVE ECOSYSTEMS COUNCIL and ALLIANCE FOR THE WILD ROCKIES Plaintiffs, vs. MARY C. ERICKSON, Custer Gallatin National Forest Supervisor, LEANNE MARTEN, Regional Forester of Region One of the U.S. Forest Service, THOMAS L. TIDWELL, Chief of the U.S. FOREST SERVICE, an agency of the Department of Agriculture, and the U.S. FISH & WILDLIFE SERVICE, an agency of the Department of the Interior, Defendants	9:17-cv-00053-DLC BRIEF IN SUPPORT OF PLAINTIFFS' MOTION FOR SUMMARY JUDGMENT

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Summary of Case

This case is brought pursuant to NFMA, NEPA, the ESA and the Healthy Forest Restoration Act. It challenges approval of the Smith Shields Forest Health Project ("Smith Shields") in the Crazy Mountains of the Gallatin National Forest ("Gallatin") by the Forest Service (USFS), as well as the Biological Assessment for that project. Plaintiffs ("Alliance") also challenge the USFS's decision not to prepare a Supplemental EIS for recent amendments to the Gallatin Forest Plan now being implemented in Smith Shields. Finally, Alliance is challenging the USFS Chief's designation of approximately five million acres (7,700 square miles) of National Forest lands in Montana as eligible for the same categorical exclusion pursuant to which Smith Shields was approved.

I. Background: NEPA & HFRA

NEPA is our "basic national charter for protection of the environment," 40 C.F.R. §1500.1(a), and directs all federal agencies to assess the environmental impact of proposed actions that can significantly affect the quality of our shared environment. 42 U.S.C. § 4332(2)(C). An EIS must be prepared under NEPA whenever substantial questions are raised whether a proposed action may have a significant effect on some environmental factor. *Greenpeace Action v. Franklin*, 14 F.3d 1324, 1332 (9th Cir. 1993). This is meant to be "a low standard." *Klamath-Siskiyou Wildlands Ctr. v. Boody*, 468 F.3d 549, 562 (9th Cir. 2006).

Agencies can only bypass detailed statements for "categories of actions which do not individually *or cumulatively* have a significant effect on the human environment." (emph. added) *Sierra Club v. Bosworth*, 510 F.3d 1016, 1019 (9th Cir. 2007); 40 C.F.R. §1508.4. However, the USFS may not take advantage of a categorical exclusion absent *certainty* that the project being considered will not cause significant effects to the environment. 36 C.F.R. § 220.6(c). By necessary inference from *Klamath-Siskiyou Wildlands Ctr., supra.*, this would seem to be a *high* standard.

In 2014, Congress added Sec. 602 & 603 to the Healthy Forest Restoration Act ("HFRA") (16 U.S.C. § 6591 et. seq.), authorizing the USFS to designate landscape-scale treatment areas where there is declining forest health from insect or disease infestation. Landscape scale treatment projects of less than 3,000 acres are conditionally permitted in these designated areas pursuant to a newly created categorical exclusion. However, decisions to exclude such project must:

- "maximize[] the retention of old-growth and large trees, as appropriate for the forest type, to the extent that the trees promote stands that are resilient to insects and disease" [602(e)] and,

- "consider[] the best available scientific information to maintain or restore the ecological integrity, including maintaining or restoring structure, function, composition, and connectivity." [603(b)(1)(B)]

According to the USFS public information website incorporated into the Smith Shields Decision Memo (AR014419):

> [T]hese designations do not change or exempt the Forest Service from complying with any other existing law, regulation and policy, such as the National Environmental Policy Act, Endangered Species Act… *and any other applicable law, regulation, and/or policy* that affects the designated areas.

(emph. added). One such policy is found in the Forest Service Handbook, which provides further clarification regarding consistency with NEPA and its regulations:

> The Council of Environmental Quality regulations provide for categorical exclusions… [that] allow Federal agencies to exclude from documentation in an environmental assessment or environmental impact statement categories of actions that do not individually or cumulatively have a significant effect on the human environment. Based on the Agency's experience and knowledge, the responsible official can conclude that if the action fits within an identified category and analysis shows there are no extraordinary circumstances, then the action would not have significant effects.

USFS Handbook 1909.15, Ch. 30.

Upon reviewing the State of Montana's request, and well outside the 60-day period for *non-discretionary* designations (conditioned upon Governor's request) of one or more landscape-scale areas in at least one national forest, the USFS Chief designated approximately 7,700 square miles of National Forest lands in Montana for the purpose of identifying qualifying projects (DM-22)[1]. See: 602 Map. Ignoring NEPA's applicability to programmatic decisions, the Chief did not

[1] This designation was pursuant to HFRA §602(b)(2): "After the end of the 60-day period described in paragraph (1), the Secretary *may* designate additional landscape-scale areas under this section as needed to address insect or disease threats." (emph. added)

conduct any NEPA analysis of the foreseeable indirect impacts[2] this designation could have - a violation of law that taints the whole program. See, e.g.: *California Wilderness Coal. v. U.S. Dep't of Energy*, 631 F.3d 1072, 1098 (9th Cir. 2011); *N. Alaska Envtl. Ctr v. Kempthorne*, 457 F.3d 969, 973 (9th Cir. 2006).

Here, as in *Sierra Club v. Bosworth*, supra., at 1019, "no cumulative impacts analysis was performed" prior to the §602 designation. As the Court in *Bosworth* explained, such analysis "is of critical importance in a situation such as here, where the categorical exclusion . . . has the potential to impact a large number of acres." *Id.* Thus here, just as in *Bosworth,* "[i]n order to assess significance properly, the Forest Service must perform a programmatic cumulative impacts analysis" for the § 602 designation. *Id*. The USFS provided no rationale for ignoring NEPA in this manner and, as the facts of this case show, one of the potentially significant indirect impacts from the Montana designation is to imperil habitat connectivity for the threatened Canada lynx, as well as many other wildlife species.

II. Standard of Review

Judicial review of an agency's compliance with NEPA and NFMA is governed by the judicial review provisions of the APA. *Native Ecosystems Council v. Dombeck*, 304 F.3d 886, 891 (9th Cir. 2002). Agency decisions must be vacated if the agency entirely fails to consider relevant factors or important aspects of the

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[2] "Indirect effects" are those effects "which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable." 40 C.F.R. § 1508.8.

problem in light of the policies underlying NEPA and NFMA. *Motor Vehicle Mfrs. Ass'n of U.S. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29,103 S.Ct. 2856 (1983); *Ocean Advocates v. U.S. Army Corps of Eng'rs*, 402 F.3d 846 (9th Cir. 2005).

The purpose of the ESA is to "provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, [and] to provide a program for the conservation of such endangered and threatened species ...." 16 U.S.C. § 1531(b). In drafting the ESA, Congress noted that, in general, accurate, up-to-date, high quality information is essential to agency compliance with the statute. 16 U.S.C. § 1536(c)(1). The goal of the ESA is not only to temporarily save species from extinction, but also to recover these species to the point where they are no longer in need of ESA protection. 16 U.S.C. § 1532(3). The ESA thus reflects a policy of "institutionalized caution" intended to "give the benefit of the doubt to preserving endangered species." *Arizona Cattle Growers' Association v. Salazar*, 606 F.3d 1160, 1166-67 (9th Cir. 2010) (quoting *Gifford Pinchot Task Force v. U.S. Fish and Wildlife Service*, 378 F.3d 1059, *as modified by* 387 F.3d 968 (9th Cir. 2004)).

III. Significant Canada Lynx Issues Under ESA and NFMA

Both the Montana landscape designations pursuant to HFRA and the Smith Shields decision itself pose unacceptable, and largely unexamined, threats to connectivity of habitat for the threatened Canada lynx. Intensive tree harvesting can eliminate the mosaic of habitats and mix of forest stand age classes that

promote lynx survival (NRLMD-016668). Smith Shields proposes intermediate harvest on approximately 1,309 acres, and 359 acres of clearcuts (AR01878-79) - 2.6 square miles of logging requiring 6.2 miles of new roads - and fails to maximize the retention of old-growth habitat and large trees, as required by HFRA (infra.). Lynx depend upon old growth for winter habitat. See: Third Johnson Dec., ¶ 56 (citing *Squires et al.* 2010, at AR010405-06).

While the habitat standards of the Lynx Amendment were identified by Defendant U.S. Fish & Wildlife Service (USFWS) as the means for ensuring conservation of the lynx in the Northern Rocky Mountains (AR023699-23704), USFS ignored USFWS's recommendation to adopt these standards for unoccupied secondary areas until such time as those areas become (re)occupied (AR023702). Up until the time of listing, the Crazy Mountains had been identified as *occupied* lynx habitat. Second Johnson Dec., ¶ 10. However, under the current listing, the Crazies are considered secondary habitat, important for preserving connectivity between the isolated Greater Yellowstone Ecosystem lynx core habitat and its source population in Canada: "[R]etaining connectivity with the larger lynx population in Canada is important to ensuring long-term persistence of lynx populations in the United States" (74 Fed.Reg. No. 36, p. 8627).

As per the Northern Rockies Lynx Planning Area Map from the Lynx Amendment, large portions of Montana are identified as unoccupied secondary

lynx habitat, with limited amounts of occupied secondary habitat within close proximity to core areas. Second Johnson Dec., ¶ 17. Linkage zones identified on Planning Area Map display (with arrows) how lynx movement would likely occur between various mountain ranges in this secondary unoccupied habitat, indicating where connectivity must be retained between the two core units. The most direct route for lynx dispersal would be down the eastern mountain ranges, including the Big & Little Belts, Castles, Crazies, and Bridger mountain ranges.

One can begin to appreciate the potentially significant indirect impacts of Montana's HFRA designations on long-term lynx persistence by comparing the map of those designations with the migration corridors identified for maintaining lynx connectivity. Smith Shields is situated in a bottleneck of one of these corridors, and thus landscape treatment of that bottleneck has the potential to significantly affect connectivity for decades to come. Second Johnson Dec., ¶ 32. Had the Chief solicited public input as part of a NEPA process prior to finalizing these designations, this is clearly one significant issue that would have been brought to his attention, one that would arguably require consultation with USFWS.

Clearly, the absence of enforceable standards in the Lynx Amendment for maintaining habitat connectivity through secondary habitat migration corridors imposes a greater obligation to address such issues at the landscape level. The Chief's landscape level designations seeks to relieve the USFS of its duty to

take a hard look at such impacts under NEPA. Significantly, however, HFRA §603 requires the USFS to "consider[] the best available scientific information to maintain or restore… [habitat] *connectivity*" (emphasis added). This requirement mirrors the agencies overarching obligation under the ESA to bring the best scientific and commercial data available to bear on the impact of a proposed project on listed species.[3] The Smith Shields analysis falls short of this searching legal standard by any objective measure. See, generally: Second Johnson Dec.

Squires et al. (2013) represents the current best science on conservation of lynx in the Northern Rockies. It concludes that lynx conservation in the lower 48 hinges in part on maintaining population connectivity between Canada and the states. Second Johnson Dec., ¶ 30. This is consistent with USFWS's conclusion that the lynx in Greater Yellowstone Ecosystem are part of a larger meta-population whose center is located in central Canada, and that local lynx populations migrate from this area. NRLMD-016966. Projects such as the Smith Creek Vegetation Treatment Project and the overlapping Smith Shields Forest Health Project are cumulatively significant, as they could jeopardize recovery and long-term persistence of lynx populations in the Northern Rockies absent any rigorous requirement to maintain habitat connectivity.

Lacking specific criteria for measuring connectivity, and without identifying migration corridors through the project area, Smith Shields (AR014412-13) asserts

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[3] Final ESA Section 7 Consultation Handbook, March 1998, p. 1-6

that connectivity is maintained because untreated areas throughout the West Crazies lynx analysis unit (LAU) will allow transient lynx to move through the area in search of quality habitat elsewhere. However, *Squires* defines habitat connectivity for lynx as "a function of movement between patches *and the likelihood that patches are suitable for resident populations"* (emph. added, Abstract, AR010413) - a critical factor ignored in Smith Shields.

> We found that connectivity between lynx habitat in Canada and that in the coterminous US is facilitated by only a few putative corridors… Maintaining the integrity of these connectivity corridors is of *primary importance* to lynx conservation in the Northern Rockies.

(*Id*., emph. added). Thus, retention of lynx habitat connectivity requires not only that lynx can move through a given landscape, but that suitable habitat is present to allow survival outside of core habitats. Naturally, this combination of suitability and connectivity are also crucial to long-term *recovery*.

Directly contradicting *Squires* 2013, the USFS here determined, without any discussion of the study, that "in unoccupied/secondary habitat a lynx may move through every now and then but not [require] a home range in the action area." FWS_Emails_000056. Even apart from the ESA violation here, the resulting uncertainty concerning impacts on putative corridors for lynx should have precluded categorical exclusion. 36 C.F.R. § 220.6(c).

Squires (AR010417, 10420) shows lynx prefer to travel in dense forests and areas with dense vegetation cover. Smith Shields would eliminate a square mile of

multi-storied stands. FWS_Emails_000056. For lynx connectivity purposes, dense forests are those with a canopy cover of 60% or greater (AR010416), while the USFS considers 40% canopy cover adequate for wildlife purposes in Smith Shields. AR02608. USFS (AR02705) loosely defines connectivity as consisting of an adequate amount of cover arranged in a way that allows lynx to move around. However, compounding the failures to adopt recommended protective standards and/or to identify migration corridors, the quantity and distribution of forested canopy and ground-level hiding cover that will allow lynx to move through this recently logged area is never disclosed or analyzed.

Substantial uncertainty exists as to the *present* adequacy of habitat connectivity for lynx in the project area as well. In the Smith Creek portion of the project, there has already been over *five square miles* of logging. AR015302. The effects on distribution of effective lynx cover across the landscape associated with this previous logging is not disclosed. It is apparent, however, that expansive areas of this landscape are naturally deficient in cover, and much of the good cover that remains will be eliminated. See, e.g., AR02721. The 5,789 acres of cumulative degradation from timber harvest could represent *almost half* of the lynx' functional natural habitat. Second Johnson Dec., ¶ 46. This is clearly a potentially significant impact for a threatened species, requiring at a minimum the preparation of an Environmental Assessment.

Finally, the Biological Assessment (AR02695-96) notes in passing that the management strategy for unoccupied secondary areas in the Lynx Amendment has been "updated" by an interagency team (ILBT 2013) - *with no public involvement*, and without Forest Plan amendments - *downgrading* the conservation value of unoccupied secondary habitat the same year Squires published a study emphasizing the importance of that habitat to long-term recovery. This contravention of best available science will lead to cumulative degradation of lynx habitat, impairing connectivity, and constitutes a threat to long-term recovery, thus posing a potentially significant ecological and environmental concern that requires a hard look under NEPA. Thus, this informal Lynx forest plan amendment violates NFMA. See: 36 C.F.R. §§ 219.14, 220.4.

IV. The Amended Gallatin Forest Plan Standards Represent A Significant Departure From Existing Forest Plan Direction

Smith Shields appears to be the first project on the Gallatin implementing the changes to the Forest Plan old growth and big game habitat standards affected by the "Clean-Up Amendment" adopted in 2015. The USFS insisted that the new standards would not lead to any changes in management activities, since they did not represent "an attempt to change the underlying substance of the 1987 Forest Plan." AR-0503. When pressed on the absence of science-based environmental analysis in the EA supporting the proposed finding of no significant impacts from

these changes, USFS promised "more site-specific analysis in compliance with NEPA at the time ground-disturbing actions are proposed." AR-03243. Instead, they are implementing the new standards pursuant to a categorical exclusion from NEPA's requirements to take a hard look at the significance of the changes to the forest plan standards on big game and old-growth dependent species. Because these changes trigger significant environmental concerns over the cumulative impacts of timber harvest under the forest plan on wildlife diversity in the Gallatin, a supplement to the Gallatin Plan EIS is required under NEPA.

HFRA § 603(d)(4)(e) requires that all projects be consistent with the relevant forest plans, which necessarily calls into question the significance of the new clean-up amendments. As Smith Shields amply illustrates, the decision to forego supplementing the forest plan EIS in support of the clean-up amendments was arbitrary and capricious, must be set aside, and Smith Shields is demonstrably inconsistent with the previous forest plan standards.

A. The Amended Big Game Standards Represent Substantive Changes To the Gallatin Forest Plan

In *Hapner v. Tidwell*, 621 F.3d 1239 (9th Cir. 2010), the Ninth Circuit found USFS had mis-applied the Gallatin big game standards in Smith Creek. Infra. It was in response to this and other rulings favoring wildlife protection that USFS sought to "correct" - a euphemism for 'remove' - those protective standards in the Clean-Up Amendment. As the Supervisor made clear at the outset: "Standards that

would be a priority for removal would be those that create legal vulnerability in defending project level decisions." AR-01891; 01883. Remarkably, USFS determined they could remove legal protections for wildlife from the plan with no adverse impacts to wildlife itself.

The specific standard at issue in *Hapner* required USFS to "[m]aintain at least two thirds of the [big game] hiding cover associated with key habitat components over time." 621 F.3d at 1250. As the Gallatin's Wildlife Biologist subsequently pointed out in discussing this judicial ruling:

> At the time Forest Plans were being prepared, there had been many studies completed looking at big game responses to what had been a fairly aggressive timber harvest era on National Forests in Region 1. The recommendations from those studies were embodied in a publication often referred to in Forest Plans (*Coordinating Elk and Timber Management,* 1985). On page 9 of that publication, it speaks to "good cover" as being ***two-thirds of total area***; this may be the background for the Gallatin's two-thirds standard.

(emph. added) AR03516. This qualified statement from Canfield finds confirmation in the Gallatin Plan EIS at VI-61: "The Guidelines of the Montana Cooperative Elk-Logging Study were utilized in the development of Forest Plan management standards." The "two-thirds of total area" standard is the legal protection USFS now seeks to remove from the 1987 Gallatin Plan, without bothering to supplement the plan's EIS pursuant to NEPA.

The Circuit Court in *Hapner* (at 1250) rejected the USFS interpretation "that the Plan prohibits only timber sales that would reduce now-existing elk cover by

more than 33%." As *Canfield* acknowledges, the two-thirds standard was based on a 15-year elk-logging study from the Montana Department of Fish, Wildlife, and Parks ("MFWP"), *Lyon et al.* (1985) - the best available science underlying the Gallatin standards. Accord: *NEC v. USFS,* 418 F.3d 953 (D. Mont. 2005); *Helena Hunter & Anglers v. Tidwell*, 841 F.Supp.2d 1129 (D. Mont., 2009).

Rather than merely clarifying the "original intent" (AR-1798) of the Gallatin Plan, which is actually quite clear, the Clean-Up Amendment *removes* this habitat protection standard altogether, and substitutes the following: "Vegetation treatment projects… shall maintain at least two-thirds (2/3) of Douglas fir, lodgepole pine, and subalpine fir conifer forest cover types (on National Forest System lands) with at least 40% canopy cover (on National Forest System lands), to function as hiding cover for elk at any point in time…" AR0740-741. This diminishes the protective standard in four ways: first, rather than applying to *total area* of the relevant landscape (e.g., an Elk Herd Analysis Unit, which often includes intermixed non-federal lands), it applies *only* to national forest lands; second, rather than applying to *all* national forest lands, it applies only to *forested* areas; third, rather than applying to *total* forested areas, it only applies to *certain types* of forests; and fourth, rather than adhering to the forest plan definition of hiding cover, it presumes that any forest with 40% canopy cover will 'function' as hiding cover.

At a minimum, this change contravenes this court's reasoning in *NEC v. Weldon*, 848 F.Supp.2d 1207, 1218 (2012), which involved best available science for measuring hiding cover:

> *Hillis* expressly stated that "[a]nalysis units should not be adjusted for land ownership; instead, they should reflect the cumulative habitat conditions perceived by elk." Given this dictate from its own scientists, the Forest Service's decision to exclude private lands was unexplained and so is arbitrary and capricious…

No explanation is offered in either the Clean-Up Amendment EA or Smith Shields for this significant change in methodology. The proposition that this is not really a substantive change in the standard that would affect management activities, and therefore would have no significant impact, is further belied by a close examination of the application of the alternative standards to the situation on the ground in Smith Shields.

B. Applying the New Big Game Standards Significantly Reduces Elk Security

One way to appreciate the significance of the incredible shrinking Gallatin big game standards is simply to consider the facts of the present case - the first sale to apply them in existing elk habitat. Beginning in 1970, an interagency team of biologists, including representatives from universities, the Forest Service research branch, and Montana Fish Wildlife & Parks studied timber management impacts on elk in Montana (*Lyon et al.* 1985). In their final report, they state that "good" hiding cover for elk was "at least two-thirds of total area," while "poor" hiding

cover for elk was "one-third or less of total area" (*Ibid*., p. 9).

The general condition of elk hiding cover in the Smith Shields project area in relation to the original Gallatin standard is revealed by Table 8 in the Wildlife Report - "Hiding Cover by 6th Code HUC." AR02614. These large drainage basins referenced in this table are effectively equivalent to the Elk Analysis Unit (EAU) for Smith Shields,[4] and as the USFS itself notes (AR02618):

> [C]umulative effects to big game habitat due to past management actions and natural ecological processes are reflected in the existing habitat conditions described for the Smith Shields EAU.

The first thing to note about Table 8 is that the percentages shown are hiding cover as a portion of *total area, including private lands* - in accord with best science. Cumulatively, hiding cover is revealed here to comprise only **35% of the total area** in the EAU - very close to "poor" (33%), as identified in best available science, and *nowhere near meeting the pre-amendment forest plan standard of two-thirds hiding cover.* This is clearly a substantive change to the forest plan standard, and just as clearly indicative of cumulatively significant adverse impacts to elk habitat from past disturbances in this Elk Analysis Unit. Thus, any further reductions in hiding cover are *necessarily* significant. While this is undoubtedly "an important aspect of the problem" concerning further timber harvest in addition to past logging in this area of the forest, it is not treated as such under the newly

[4] 86,903 total acres vs. 87,109 acres. See: Tables 8 (AR02614) & 10 (AR02617).

"clarified" (removed) big game standard. This represents a significant change to the forest plan which requires supplementing the EIS that supports the plan, since obviously the EIS did not anticipate changing the standard, and landscape conditions, from "good" hiding cover for elk to "poor" hiding cover.

Excluding private lands from this analysis, for the sake of illustration, the EAU includes 38,693 acres of National Forest lands (AR02610) with 22,263 acres of hiding cover, which equates to 58% of forest lands (AR02614). Thus, *even excluding* private lands from the EAU, the area is *still deficient* in hiding cover under the former standard (less than 2/3), and any further reductions would not be permitted until the area recovers from past logging. The USFS asserts there will be a reduction of 985 acres hiding cover from the proposed logging (AR02617), reducing hiding cover from 58% to 55%, which is cumulatively significant as a matter of science, logic, and original forest plan intent.

So while the 1987 Plan standard would preclude logging Smith Shields until logged areas had recovered their habitat values for wildlife, especially in the wake of timber harvest from the Smith Creek Project,[5] the amended standard allows almost *unlimited* logging of hiding cover without *any* cumulative effects to big game - a significant shift in emphasis from habitat protection to fuels reduction. In fact, by limiting analysis to existing forested acres on Gallatin lands, the clean-up

[5] Cumulatively, Smith Creek and Smith Shields reduce hiding cover by 2487 acres, or 3.9 square miles (Applying *Canfield* 2011, AR03523).

amendment leads to the incongruous conclusion that this heavily-logged landscape somehow has ***99% hiding cover,*** AR02617*,* as compared to 35% under the 15-year elk logging study the protection standards are based upon.

How does this *not* represent "an attempt to change the underlying substance of the 1987 Forest Plan," as USFS insisted (AR0764; AR0386)? How does it not "depart from the original intent of the Plan" (AR-1798)?

To appreciate just how detached the new standard is from best available science, one need only ponder the following paragraph from the Wildlife Report, which comprises *the entire discussion of elk hiding cover* in the project record:

> As shown in Tables 7 and 10, there is currently a total of 33% of the hiding cover in the Smith Shields EAU. Assuming that all acres treated would eliminate all elk cover, the Smith Shields EAU hiding cover would be reduced by 1% (Table 10). This level of hiding cover are [sic] *well above the 2/3 requirement.*

(emph. added, AR02617). This is strikingly reminiscent of the kind of vacuous reasoning which the Circuit Court ridiculed in *Hapner.* Never mind that 33% hiding cover is considered "poor" under *Lyon et al.* 1985, supra., or that it is a full third below what the standard was before the 'non-substantive' change. Just be assured by the fact that 1% is far less than 2/3 of 33%!

This is not science - it's *numerology*.

Even though both the EAU and the Gallatin portion of the EAU are both well below the two-thirds cover requirements referenced in the best available scientific information from a 15-year cooperative study incorporated into the

Gallatin Plan/EIS, application of the new standard somehow allows the USFS to ignore the issue without disclosing the departure from science that has applied since 1985, and which formed the basis for the Circuit Court's concern in *Hapner*.

C. Elk Displacement is a Significant Environmental Issue in Montana

The cumulative impact from extensive "fuels reduction" in an EAU is quite significant, as it results in displacement of elk herds from public to private lands - for refuge - during hunting season, effectively eliminating fair-chase hunting opportunities. The Wildlife Report for Smith Shields refers obliquely to "the potential to affect elk distribution through displacement and alterations in forested cover" (AR02607), but it fails to analyze the cumulative effects of elk displacement from public lands due to reductions in security from excessive roading and eliminating hiding cover.

There is no such thing as an insignificant contribution to a cumulatively significant environmental impact. If displacement of elk herds from public lands in Montana is a significant cumulative effect of eliminating hiding cover, and if Smith Shields has the potential to contribute to that cumulative impact, then the project may not be categorically exempted from NEPA. 40 C.F.R. §1508.4.

As is clear from the record, displacement of elk from public lands in Montana is both a significant and *timely* issue. MFWP, with responsibility for managing elk herds in Montana, cites the need to "prevent" or "reduce the displacement of public elk from public lands during the fall hunting season…"

through responsible forest management (AR0555, 557). As Montana Fish Wildlife & Parks has made clear:

> [The] lack of fall security [is] likely limiting both survival of bull elk *and retention of elk on public lands* during the fall hunting seasons… Hunter opportunity and MFWPs management capabilities generally decrease as elk are displaced from public to private lands… Displacement of elk from public land to private land refuges is an increasing concern.

(Ibid., AR0558, 560, 566). The growing inability of MFWP to control elk numbers due to displacement is discussed in a recent *Montana Outdoors* article,[6] which notes Montana's years-long struggle to lower elk numbers in many areas to reach population objectives. In spite of their best efforts, elk numbers continue to climb, and getting them back down to manageable levels is, according to the head of Montana Fish Wildlife & Parks, a "*top priority*" of the state legislature. AR0540.

Ignoring this statewide concern, USFS infers that the high elk populations in the Smith Shields EAU (3,100, compared to MFWP's objective of 800-1200) is indicative of *high* habitat quality and security! AR02610. The issue of displacement from public lands is dismissed with the following obfuscatory statement: "Elk move to private land in response to hunting pressure during the archery season." Ibid. The well established connection between low security and elk displacement to private lands is not disclosed or analyzed *in either* the Smith Shields project analysis or the EA for the Clean-Up Amendment.

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[6] Dickson, T. "Shouldering Its Responsibility," *Montana Outdoors* (2015), AR0538-542.

Elk displacement is a significant cumulative impact because poor cover is *already* resulting in displacement, and cumulative reductions in hiding cover from another 2.5 square miles of proposed fuels management will likely result in *further* displacement of elk during hunting season. AR02607. Expert analysis by a former USFS Biologist for the Gallatin reveals numerous obvious errors and misapplied scientific standards clearly intended to inflate the amount of big game security in the EAU and disregard elk displacement from public lands. First Johnson Dec., ¶ ¶ 13-31. It does not appear that this vexing issue has ever been analyzed in an EIS by the Gallatin, as it was not an issue addressed in the forest plan EIS, and as both the Smith Shields CE and the EA for the Clean-Up Amendment only refer to non-NEPA documents in relaxing security standards.

D. New Old Growth Standard Significantly Reduces Wildlife Protection

Another startling embrace of numerology over science is represented by the following rationale for the Clean-up Amendment's change to the old-growth habitat distribution standard: "The numeric threshold for old growth was retained, because of its social and ecological importance." (Resp. to Pub. Comm., p. 21). As a matter of scientific fact, what the USFS *actually* did was change the existing standard from 10% of total timber compartment(s) area when proposing a project (Gallatin Plan, p. II-20) to "10% old growth forest on lands classified as forested at the mountain range scale." AR0746. The USFS also dropped the only two old-growth indicator species under the Gallatin Plan, the goshawk and pine marten,

without designating a replacement for gauging impacts of logging on species diversity. AR0743.

The significant impact of this reduction is also well-illustrated by Smith Shields. Only 1,410 acres of dedicated old-growth habitat is needed to meet the new standard, versus 1,963 acres needed to meet the needs of old-growth species under the 1987 plan - representing a 28 percent reduction[7] in this, the rarest wildlife habitat (with highest economic value to loggers) on our national forests. Third Johnson Dec., ¶ 45. The ecological significance of this reduction in the amount of old-growth habitat required to be managed for the benefit of wildlife species was never analyzed or justified in relation to species habitat needs in the Clean-Up Amendment EA, nor was it analyzed in relation to best available scientific information in Smith Shields. In fact, since the *distribution* requirement was also eliminated, along with the MIS, old-growth habitat *has not even been mapped* for the Smith Shields project area.

As recently as 2011, USFS acknowledged (AR012808) that pine marten (like lynx) select winter habitat with high canopy cover, large live trees, large dead-fall, and abundant vegetation in the understory - all characteristics of old-growth habitat. Best available science shows marten depend on old growth. See, Third Johnson Dec., ¶ 54. Lynx also depend on old-growth habitat (*Squires et al.* 2010, AR010405-06). A significant new USFS study found that pine marten are

[7] Forest-wide, 23% of the acreage in the Gallatin NF is non-forested (Gallatin Plan, p. A-18).

much more sensitive to fuels reduction projects than previously understood, with the odds of detecting marten in areas treated to reduce fuels almost 100 times less than in more structurally-complex forest stands. *Moriarty et al*. (2016).

In *Hapner*, supra., the Circuit Court dismissed concerns over the effects of fuels reduction on marten by noting that a USFS "study on species viability in the Gallatin Forest concluded that habitat to support the pine marten is abundant in the Project area" (621 F.3d at 1247). The Court was misinformed. On the contrary, pine marten are considered "rare" in the Crazy Mountains, which a previous Gallatin biologist surmised may be habitat related (Cherry 2006, AR04654). Indicative of this, Smith Shields contains only 0.3% of the marten's preferred habitat (60/19,636 acres). AR02627.

Marten are now considered an indicator for the kind of mature forest being treated in Smith Shields. The USFS was unable to document their presence in the project area. In fact, in 2011 the Gallatin acknowledged that pine marten may have been "trapped out" of the Crazy Mountains altogether (AR012808) - a function of road density and limited habitat - speculation that was subsequently confirmed by the failure to detect *any* in extensive lynx surveys within the project area (which surveys found bobcats, cougars, coyotes and bears). See: AR012777.

NFMA does not permit the USFS to continue relying on habitat analysis for a MIS that is absent from the project area. *Alliance v. Tidwell*, 599 F.3d 926, 937 (9th Cir. 2010). As made clear by Gallatin monitoring in light of new information

from *Moriarty*, the cumulative effects of road density and fuels reduction on marten persistence represents a significant impact - again, precluding reliance on categorical exclusions.

Moose also depend upon old-growth habitat for winter survival and, to avoid heat stress, for thermal cover in summer. Third Johnson Dec., ¶ 63. Moose in Montana and other western states are currently experiencing significant population declines. Ibid., ¶ 64. The amended big game standard requires: "Big game habitat (summer and winter range) will be managed to meet the forage and cover needs of big game species in coordination with other uses." AR0740. While the "major impact to deer and moose under the proposed treatments would be a reduction in hiding and thermal cover," AR02642, the cumulative extent and significance of this "major impact" is not analyzed. Third Johnson Dec., ¶ ¶ 61-63.

V. Smith Shields Violates HFRA

A. Old Growth Retention Requirement

In addition to considering best available scientific information, projects approved under HFRA must be carried out "in a manner that maximizes the retention of old-growth [habitat] and large trees, as appropriate for the forest type, to the extent that the trees promote stands that are resilient to insects and disease" (§ 602e). USFS provided no analysis in Smith Shields of how the proposed treatments will affect future old-growth habitat levels, and there is no requirement in the project to 'maximize' retention of large trees. Instead, USFS

simply notes that "[t]he largest and healthiest trees, as appropriate for the forest type, habitat type, and old growth group will be retained ['as residual trees'] to the extent that the trees promote stands that are resilient to insects and disease, fire, and changing climate." AR01879.

Retaining the largest and healthiest trees only *as residual trees* is business-as-usual in timber harvest on national forests. However, marking a few large, healthy trees for retention in a cutting unit does nothing to '*maximize*' the retention of large trees. To maximize retention, *all* of the healthy, large trees should remain after logging, since only diseased trees are supposed to be removed. Conditionally marking *some* large trees as residual trees *minimizes* retention, contrary to the plain meaning of HFRA.

In addition, USFS has done nothing to demonstrate that it is not logging old-growth forest. This is because the Clean-Up Amendment now allows them to rely on old-growth at the mountain range, instead of within timber compartments, and permits estimation of those levels utilizing data *that does not permit mapping.* Without mapping structural stages for proposed projects, as was the practice for three decades under the Gallatin Plan, neither the public nor the decision maker can determine from the record whether old-growth habitat is being sacrificed under the guise of forest health. Furthermore, *distribution* of habitat is a component of viability under the Gallatin Plan, not just amount. GNF Plan, at VI-52.

B. Soils Productivity Standards

HFRA also requires that projects be consistent with controlling forest plans. In order to comply with NFMA's prohibition against irreversible losses in soil productivity, the Gallatin relies on regional soil standards. For areas where more than 15 percent detrimental soil conditions already exist from prior activities, these standards provide that "the cumulative detrimental effects from project implementation and restoration should not exceed the conditions prior to the planned activity and should move toward a net improvement in soil quality."

Smith Shields includes one unit (#17) that currently has 16% detrimental disturbance. Juel Dec., ¶ 18. Logging is permitted in this unit in reliance on mitigation that is acknowledged to be less than 100% effective, meaning that disturbance will be greater than 16% post-harvest. Ibid., ¶ ¶ 19-21. Even if the mitigation were 100% effective, there would still be no "net improvement in soil quality." This is a *per se* violation of the standard, and thus the HFRA requires the decision to be vacated.

Respectfully submitted this 28th day of August, 2017,

/s/ Thomas J. Woodbury
Thomas J. Woodbury
Attorney for Plaintiff

Certificate of Compliance with L.R. 7.1

The undersigned attests that the foregoing brief is in compliance with Local Rule 7.1, in that it has 6425 words.

/s/ Thomas J. Woodbury
Thomas J. Woodbury